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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,228	05/07/2004	Chin-Wen Chou	2450-0695PUS1	9676

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EXAMINER	
A, MINH D	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/840,228	CHOU ET AL.	
	Examiner	Art Unit	
	Minh D. A	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7 and 9* is/are rejected.

7)☒ Claim(s) *5 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/7/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaughn (US 6,016,052)

Regarding claim1, Vaughn discloses a light of cold cathode fluorescent lamps (CCFLs) to modulate a luminosity of a CCFL by altering output voltage and output current of a piezoelectric transformer (1702) that actuate the CCFL, comprising: Phase trigger oscillator for generating a pulse width modulation control signal that has different operation cycles Ton and Toff ; and generating a high frequency AC signal with different frequencies fl and f2 at the different operation cycles To„ and Toff of the pulse width modulation control signal to actuate the piezoelectric transformer (1702) to alter the output voltage and the output current of the piezoelectric transformer (1702) thereby to modulate the luminosity of the CCFL. See figures 6-17, col.7, lines 8-67 to col.12, lines 1-67.

Regarding claim 2, Vaughn discloses the pulse width modulation control signal (phase oscillator (1702) is output from a power supply unit controlled by a pulse width modulation technique. See figure 17.

Regarding claim 3, Vaughn discloses the pulse width modulation control signal to modulate the luminosity of the CCFL. See figure 17.

Regarding claim 4, Vaughn discloses the high frequency AC signal actuates the piezoelectric transformer (1702) to generate different voltage gains at the different frequencies fl and f2, of the different operation cycles To„ and Toff. See figures 6-17, col.7, lines 8-67 to col.12, lines 1-67.

Regarding claim 6, Vaughn discloses 6. An apparatus for modulating light of cold cathode fluorescent lamps (CCFLs), comprising: a power supply unit to provide DC power required to actuate a CCFL; a pulse width modulation (PWM) control unit generating a pulse signal through a pulse width modulation technique to control the power supply unit to output a PWM control signal that has different operation cycles Ton and Toff; a resonant frequency control unit modulating the PWM control signal to become a high frequency AC signal which includes different frequencies fl and f2 at the different operation cycles Ton and Toff; and a piezoelectric transformer boosting gain of the high frequency AC signal to become a high output voltage and a high output current to actuate the CCFL to generate light. See figures 6-17, col.7, lines 8-67 to col.12, lines 1-67.

Regarding claim 7, Vaughn discloses wherein the PWM control signal has an alterable void ratio to modulate the luminosity of the CCFL. See figures 16-17.

Regarding claim1, Vaughn discloses wherein the high frequency AC signal drives the piezoelectric transformer to generate different voltage gains at the different frequencies fl and f2 of the different operation cycles To„ and Toff. See figures 3-17.

Allowable Subject Matter

3. Claims 5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach that, the piezoelectric transformer generates a first voltage gain at the frequency fl of the operation cycle Ton, and generates a second voltage gain at the frequency f2 of the operation cycle Toff, the first voltage gain being greater than the second voltage gain recited in dependent claims 5 and 8.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gray (US 6,853,153) and Ribarich (US 6,525,492) are cited to show a lighting control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

TUYET VO
PRIMARY EXAMINER

Examiner

Minh A

Art unit 2821

6/26/05